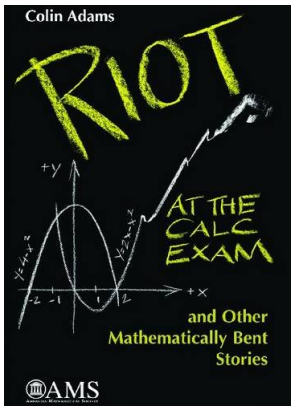
Riot at the Calc Exam and Other Mathematically Bent Stories *Colin C. Adams*, American Mathematical Society, 2009 (271 p.), soft cover, ISBN 978-0821848173, US$32.



Colin Adams is Professor of mathematics at Williams College. His research interest is the mathematical theory of knots. Besides papers and a book on this topic, he is also coauthor of *How to Ace Calculus: The Streetwise Guide* and *How to Ace the Rest of Calculus: the Streetwise Guide* which are humorous supplements to calculus and he is writing a column called *Mathematically Bent* in *The Mathematical Intelligencer*. In fact this book is mainly a collection of these columns. At the end some additional notes explain some of the background, and some drawings are included as illustrations.

The 33 short stories are often extended versions of mathematical jokes. In several cases, it is like a parody of stories we all know. In my opinion, one of the best examples is the story *A difficult delivery*. Karen, an algebraic geometer, and Jeff a number theorist are married when Karen announces one morning that "she is with theorem". Some elementary tests, and checking some counterexamples, confirm that the night they discussed jet bundles has consequences. They went to see a doctor at the university, and low and behold, after a terrible struggle with computations, and formulas, the theorem is born, and it is huge: 10 pages in 12-point type.

There is a class reunion of calculus functions, gossiping for example about $1/(1+x^2)$ who, like Arctan, is trying to "integrate itself into society" again. *Math fall fashion preview* is a description of 'fashionable' outfits of mathematicians.

But there are other examples like *Dr. Yeckel and Mr. Hide* (after R.L. Stevenson's Dr Jekyll and Mr. Hyde) or *Journey to the center of the mathematics* (as J. Verne's journey to the center of the earth), *The three little pigs* and *Rumpled Stiltsken* (after the fairy tales), and *The integral: a horror story* (somewhat longer, agonizing story where for example a staircase refines to a slippery slide), *The S.S. Riemann* (mimicking a mighty theorem going down like the Titanic on its maiden trip), *Into thin air* (about the deadly storm at Mt. Everest, here translated as attempts to prove long standing conjectures), *The red badge of courage* (about the American civil war, like mathematics is war for some students), etc. It needs not much explanation about what kind of stories these are. One just has to replace the usual characters by mathematicians or mathematical objects.

All of these are written with humor. No need to know mathematics to understand the pun. The mathematics are usually just gibberish. Here is from *The big theorem*: "We're talking another Atiyah-Patoni-Singer Index Theorem. Think of Mostow Rigidity or Heine-Borel... Here it is: the Mandelbrot-Thurston-Wiles-Pi-Orbifold Syzygy Theorem. ... Invite the Institute of Advanced Studies, the Fields Institute and the International Congress... On the PR front we have lots of ideas... You're probably wondering what the theorem is about... Quite frankly. I haven't got a clue. ... But there will be singularities ... π of them... and spectral sequences ... Or a statement that is true but unprovable.... But of course we're still in the early development stages. We'll need Mandelbrot, Thurston, and Wiles to fill in some details...".

And then there are some stories that are as funny as the rest of them, but which have some serious subsoil. *A proof of God* where an amateur mathematician terrorizes an assistent with proofs of squaring the circle etc, *Riot at the calc exam* where a professor terrorizes the students with impossible tests, *The mathematical ethicist* about what to do when you are referee of a paper that you could have written yourself, *Overcoming math anxiety* when students get a complete black-out during an exam.

Not that I was LOL but it is quite amusing to read some of the stories once in a while. Reading the whole book at once from cover to cover is a bit too much of the same in my opinion.

Adhemar Bultheel